

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/014739

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B29C71/02 B32B15/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B29C B32B B01D B21D C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 919 517 A (LEVENDUSKY ET AL) 6 July 1999 (1999-07-06) column 1, line 29 - line 43; figures 1-3 column 3, line 44 - column 5, line 23	1-4
X	US 5 238 517 A (HEYES ET AL) 24 August 1993 (1993-08-24)	1,2,4
Y	column 1, line 4 - column 5, line 60; claims 1,2; figures 2,4	3
X	DE 199 02 045 A1 (RASSELSTEIN HOESCH GMBH, 56626 ANDERNACH, DE) 5 August 1999 (1999-08-05) column 3, line 28 - line 53	1-4
X	EP 1 344 643 A (TOYO BOSEKI KABUSHIKI KAISHA) 17 September 2003 (2003-09-17) column 9, line 45 - column 12, line 49	1-4
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

24 February 2005

Date of mailing of the international search report

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 270 214 A (RASSELSTEIN GMBH; RASSELSTEIN HOESCH GMBH) 2 January 2003 (2003-01-02) column 1, line 19 - line 45	1-4
X	US 2003/152789 A1 (SINSEL JOHN A ET AL) 14 August 2003 (2003-08-14) abstract; figure 6	1-4
Y	US 2003/198537 A1 (LARSEN ROBERT B ET AL) 23 October 2003 (2003-10-23) cited in the application abstract	3

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/014739

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5919517	A	06-07-1999	US 5407702 A	18-04-1995
			US 2002102355 A1	01-08-2002
			US 2004007175 A1	15-01-2004
			CA 2217349 A1	17-10-1996
			EP 0820353 A1	28-01-1998
			HU 78063 A2	28-07-1999
			WO 9632202 A1	17-10-1996
US 5238517	A	24-08-1993	AR 241766 A1	30-12-1992
			AT 71020 T	15-01-1992
			AU 606479 B2	07-02-1991
			AU 2555888 A	02-05-1989
			BG 50043 A3	15-04-1992
			BR 8807252 A	01-03-1990
			CA 1337260 C	10-10-1995
			CN 1032763 A , B	10-05-1989
			DD 277048 A5	21-03-1990
			DE 3867415 D1	13-02-1992
			DK 292689 A , B,	08-08-1989
			EP 0312309 A1	19-04-1989
			ES 2029028 T3	16-07-1992
			FI 892900 A , B,	14-06-1989
			WO 8903301 A1	20-04-1989
			GB 2211140 A , B	28-06-1989
			GR 3003830 T3	16-03-1993
			HR 930113 A1	31-12-1995
			HR 930117 A1	31-12-1995
			HU 50305 A2	29-01-1990
			HU 203300 B	29-07-1991
			JP 2501642 T	07-06-1990
			JP 2717095 B2	18-02-1998
			KR 9605300 B1	23-04-1996
			NO 892420 A	13-06-1989
			NZ 226537 A	26-09-1990
			PL 275219 A1	12-06-1989
			PT 88738 A , B	31-07-1989
			RU 2069154 C1	20-11-1996
			TR 23932 A	20-12-1990
			YU 190888 A1	30-04-1990
			ZA 8807626 A	30-08-1989
DE 19902045	A1	05-08-1999	NONE	
EP 1344643	A	17-09-2003	EP 1344643 A1	17-09-2003
			AT 268690 T	15-06-2004
			DE 69824383 D1	15-07-2004
			EP 0928684 A2	14-07-1999
			JP 11254626 A	21-09-1999
			US 6277455 B1	21-08-2001
			US 6309720 B1	30-10-2001
			JP 3219065 B2	15-10-2001
			JP 11254627 A	21-09-1999
EP 1270214	A	02-01-2003	DE 10130005 A1	16-01-2003
			EP 1270214 A2	02-01-2003
US 2003152789	A1	14-08-2003	US 2002168532 A1	14-11-2002
			US 2004197578 A1	07-10-2004

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/014739

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003152789 A1		WO 2004074533 A2	02-09-2004
		US 2004208991 A1	21-10-2004
		AU 3107601 A	31-07-2001
		EP 1409153 A2	21-04-2004
		WO 0153004 A2	26-07-2001
		US 2003031859 A1	13-02-2003
		US 2001009718 A1	26-07-2001
US 2003198537 A1	23-10-2003	AU 2003231029 A1	03-11-2003
		WO 03089166 A1	30-10-2003